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August 11, 1994

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William F. Caton, Acting Secretary
Federal Communications Commission
1919 M. Street, N.W. Room 222
Washington, D.C. 20554

Re: FCC Staff Proposal to Regulate Interference Between Part 15
Devices and AVM/LMS Systems in 902-928 MHz Band

Dear Mr. Caton:

We represent C & K Systems, Inc. of Folsom, California. C & K Systems, Inc. is a leading manufacturer and distributor of Part 15 intrusion detection devices. As such, they operate throughout the entire 902-928 MHz band on a secondary basis. C & K Systems' Part 15 devices have achieved great market acceptance as being reliable intrusion detection devices. As a result, C & K Systems' business activities support a large number of people, directly and indirectly on payroll throughout the United States and contribute towards the gross national product and to the local and federal treasury. The staff proposal would greatly impact the ability of C & K Systems, Inc. to continue to market and sell reliable intrusion detection devices operating under Part 15 of the FCC regulations. Therefore, C & K Systems, Inc. opposes the proposal which would regulate any interference between Part 15 devices and the new AVM/LMS devices.

I. THE PROPOSED REGULATION DOES NOT ADDRESS
HARMFUL INTERFERENCE CAUSED BY AVM/LMS
PRODUCTS ON PART 15 DEVICES.

At the outset, C & K Systems, Inc. notes that it does not seek additional rights to the operation of Part 15 devices. What C & K Systems seeks is regulation that is balanced, even-handed, that would permit the co-existence of Part 15 devices and the AVM/LMS devices. The proposal does not address the issue of harmful interference to Part 15 devices (which operate in the 902-928 MHz

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frequency on a secondary basis). The proposal would permit the AVM/LMS devices to generate so much radiation that they can potentially be so interfering as to totally impair the operation of Part 15 devices rendering them totally inoperable. This failure in the proposal to address the issue of interference limitation on the AVM/LMS devices poses such a significant problem that the failure to address this issue can potentially "kill" an entire industry of Part 15 devices.

II. PART 15 DEVICES DO NOT CAUSE HARMFUL INTERFERENCE TO ANY AVM/LMS DEVICES.

Although not stated in the proposal, it is abundantly clear that Part 15 devices operating as they do on a secondary basis in the 902-928 MHz band, do not cause any harmful interference to the AVM/LMS devices. Moreover, the wideband LMS proponents have gone on record numerous times stating that harmful interference from Part 15 devices is "minimal" at best. Therefore, there should be no concern about the operation of existing Part 15 devices nor the current regulations pertaining thereto.

III. AVM/LMS LINKS SHOULD BE STRICTLY REGULATED.

It is the operation of the wideband AVM/LMS forward links that causes harmful interference to all users in the particular frequency band. Thus, they should be severely regulated or even banned outright. It should be noted that in the worst case of a ban on wideband AVM/LMS forward links, the ban would not impact the functionality of multilateration systems, because the forward link is essentially a paging channel and does not play a part in the actual location function.

Furthermore, to the extent that narrow band AVM/LMS forward links are permitted, they should be allowed only in the 927.500 and 928.00 MHz band, and be limited to less than 25 KHz bandwidth. Locating these forward links at the edge of the frequency band would make it easier to avoid interference due to the forward links. This would not unduly restrict other band users' operations because there are already paging signals at 928 MHz. Operation of the forward links in this narrow band at the edge of the frequency

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band would still permit the AVM/LMS devices to operate with the full protection of Section 15.5 of the Rules.

In addition to limitations on forward link provisions, the FCC should adopt regulations setting limits on power and duty cycles for the AVM/LMS reverse links (i.e. mobile links). Reverse links are wideband transmission. As such limits must be placed on their operation by way of power and duty cycle so that they do not eliminate the possibility of any Part 15 devices being able to share the frequency band.

IV. GROUND HEIGHT RESTRICTION ON ANTENNAS FOR PART 15 OUTDOOR DEVICES IS MEANINGLESS.

The proposal further seeks to regulate the height of outdoor antennas for Part 15 devices. C & K respectfully submits that this is technically an incorrect regulation. For example, an antenna which is only 5 meters above the ground but is at a height of 300 meters above the average terrain would have much greater potential for causing an interference signal than an antenna which is 15 meters above ground at 0 meter above the average terrain. Similarly, a signal from an "indoor" antenna which is located several stories above the ground in a building or in a parking garage, next to a window, would radiate interfering signals that would have the potential to cause more interference than an "outdoor" antenna located 5 meters above the ground. The proposal with regard to height restrictions above "ground" on outdoor antennas would have a devastating impact on many Part 15 devices.

V. FIELD DISTURBANCE SENSORS MUST BE PERMITTED TO OPERATE.

The proposal includes a "threshold" concerning Section 15.245 field disturbance sensors. This would cause an outright prohibition on their operation. In order to permit the continued operation of the field disturbance sensors, the 902-905 MHz band should not include any AVM/LMS devices.

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VI. THE PROPOSAL IF ADOPTED AS REGULATION WOULD BE AN ADMINISTRATIVE NIGHTMARE.

The proposal also includes a provision regarding "threshold", the determination of which would present the Commission with insurmountable administrative and enforcement burdens. The problem in determining "threshold" is to identify the signal that is causing the alleged harmful interference to AVM/LMS devices when there may be thousands of Part 15 devices operating in that locality. How would this Commission be able to determine which one, if any, of the thousands of Part 15 devices in operation in that locality is generating the necessary "threshold". In order to effectively determine that "threshold" question, virtually everyone of the manufacturers having Part 15 devices in that locality would be subject to administrative inquiry from the FCC. This dragnet-like effect on the "offending" Part 15 device (if any) as well as multitudes of other "innocent" Part 15 devices subjects the FCC to an administrative nightmare and the manufacturers of the various Part 15 devices in that locality to undue, unwarranted governmental intrusion.

C & K respectfully urges the FCC to reconsider the proposal in light of the above comments.

Very truly yours,

LIMBACH & LIMBACH



Ronald L. Yin

RLY:vh

cc: Richard Engleman
Office of Engineering Technology
C & K Systems, Inc.